

## Stalk Borer Remedies – by Brian Oldreive & Grant Dryden

God's Blanket has so many benefits to agricultural practice & as we follow His ways we need also be on our guard to ensure that the small foxes don't steal from us. In this case Stalk borer – *Busseola fusca*.

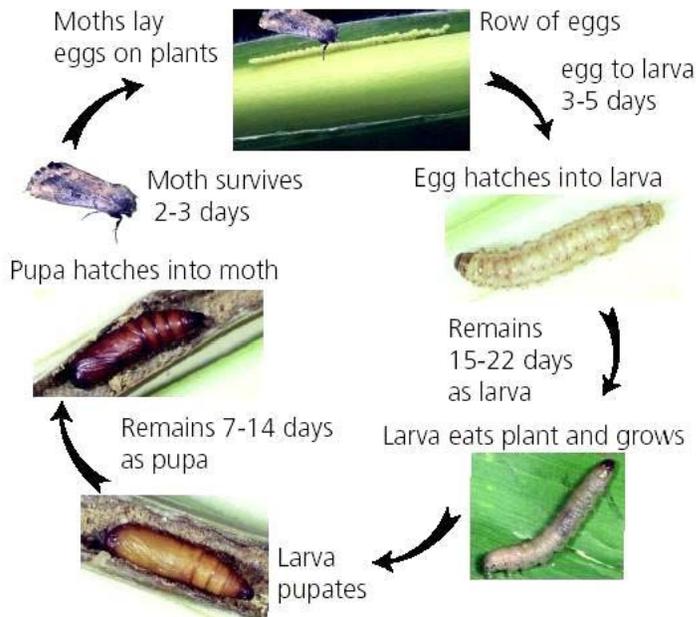
Here are some stalk borer remedies for you to consider:

"Various preparations can be poured down the funnel of the maize plants at about knee-high. Pour wood ash into the funnels or use soil (top-soil not sand as the soil cakes and hinders the pupae and caterpillars) also Tephrosia and Tobacco have been effective (leaves are ground into a fine powder and dusted down the funnels)." It is best to repeat the treatments two or three times.

Chemically you can apply a small pinch of Diptorex 2.5% granules. Diptorex is (or was) green label and there is another cheaper granule with an amber label. I cannot remember the active ingredient. It is quite a widely used chemical and any agro-chem company will tell you if you ask for "stalk-borer granules".

The required amount per hectare is between 4-8 kg, depending on your population and the size of the pinch. It is a relatively cheap dressing.

By far the best remedy is in the prevention however. Preventative methods require one to understand the life cycle of the stalk borer.



As can be seen the life cycle is from egg to larvae to pupa to moth to eggs. The crop destruction is through boring through the maize stalks internally. This causes severe crop yield losses & can also result in total failure especially in combination with big winds which will cause lodging of the plants due to internal weakness. This lifecycle can be repeated several times during the crops growing period.

From [www.pushpull.net](http://www.pushpull.net)

After the plant starts drying off the larvae move down the plants core to the crown as shown below. Here the pupal stage begins & the insect goes into a state of dormancy. What is interesting is that the pupae form on the cool side of plant ie South side in the Southern hemisphere.

**If the stalks are knocked down the pupae are exposed to UV radiation & also high heat exposure.** This dessication along with the opportunistic feeding of other species such as ants, birds & decomposing bacteria accounts for a significant reduction in Borer counts to manageable levels.

This preventative method by knocking down the stalks is fundamentally important to the reduction of stalk borer infestation in maize fields. Interestingly enough grazing alone has proven to be inadequate in the reduction of stalk borer incidence as the crown is still left intact. This stresses the importance of not cutting down the stalks but rather **kicking over the crowns** of dry maize stalks hereby exposing more of the pupal environment to reducing factors.

Also of great benefit is the incorporation of a **rotation** in the cropping cycle. Rotations are well documented practices for the reduction in pest incidence on mainline crops such as maize. With Farming God's Way we are advocating as a rule of thumb that maize fields be given a rotation every 3<sup>rd</sup> year. See Rotations in the other technical documentation.



From University of Minnesota